REMARKS

Claims 1-9, 16-23 and 63-100 are pending. By the foregoing amendment, claim 1 is amended as supported on page 10, lines 12-15. Claims 81 and 91 are amended to correct informalities. Support for the amendment of claim 81 can be found at original claim 7 and page 11, lines 19-21. Claims 10-15 and 82 are canceled.

Examiner Interview

On June 23, 2005, the undersigned attorney conducted an interview with Examiner Cocks at the U.S. Patent Office. Lead inventor Dr. Jamie Holladay participated by telephone. We discussed amendments to the claims. We discussed the interpretation of the "space" in claim 1. We also discussed the cited references and the undersigned attorney and Dr. Holladay argued that it would not have been obvious to combine the secondary reference with the primary reference.

Restriction Requirement

Claims 10-15 are canceled.

Electronically Filed Information Disclosure Statement

On April 23, 2004 attorney for applicant electronically filed an Information Disclosure Statement. Please include the initialed IDS in the response to this Amendment.

Double Patenting

Claim 82 has been canceled. Thus, this rejection is now moot.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claim 91 is amended as suggested by the Examiner.

Rejection In View of the '186 Patent

Claim 1 recites a space separating the combustion catalyst and the second plate; and is

now amended to further recite that "the space allows for fluid expansion and flow to the exhaust channel." A patent examiner should consider a claim term in the broadest *reasonable* definition as viewed from the perspective of a person of ordinary skill in the art in view of the specification. The Examiner has argued that because the catalyst and the plate are different materials, a space would exist between them; based on discussions at the interview, this alleged "space" refers to the interatomic spacing between adjacent materials. In the context of a reactor design, this is not a reasonable interpretation of the term "space" because the interatomic space would have effect on reactor performance. The meaing of "space" is now further emphasized by the amendment stating that "the space allows for fluid expansion and flow to the exhaust channel." Clearly, the interatomic "space" between adjacent materials will not allow for fluid expansion and flow. Nor is there any suggestion in the prior art to create such a space in the reactor design of the '186 patent. Accordingly, the rejection of claim 1 in view of the '186 patent should be withdrawn.

Claim 81 recites a liquid evacuation system disposed in the exhaust channel. The '186 patent does not teach or suggest any liquid evacuation system in the exhaust channel. Nor is there any suggestion of liquid forming in the exhaust channel. Therefore, there can be no motivation for a liquid evacuation system in the device of the '186 patent.

Rejection under 35 U.S.C. §103 Over the '186 Patent in View of McElroy

First, there is no proper motivation to combine these two disparate references. Neither reference suggests the desirability of their combination.

Second, even if there were a proper motivation, the references are not combinable. McElroy describes a fuel cell system that contains a wick. The function of this wick (also called a conduit structure) is to remove water from the cathode chamber while preventing the passage of gas out of the chamber. See col. 4, lines 21-24 and 52-53. Thus, McElroy's wick system is not usable with a combustion chamber since it will prevent the flow of exhaust gases.

Accordingly, the rejection over the '186 patent in view of McElroy should be withdrawn.

Finally, it may be mentioned that the Hsu reference does not make up for any of the deficiencies of the '186 patent or the McElroy references that have been discussed above.

Conclusion

If the Examiner has any questions or would like to speak to Applicants' representative, the Examiner is encouraged to call Applicants' attorney at the number provided below.

Respectfully submitted,

Date: 21 July 2005

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